

PAS are negotiated on a case by case basis and range from simple discounts to more complex arrangements. The objective of this study was to assess the changing dynamics of PAS within the UK against a background of changing structures of healthcare delivery and a greater drive to save costs. **METHODS:** A search of all approved Health Technology Assessments (HTAs) incorporating a PAS for either NICE or the SMC between October 2007 and June 2015 was undertaken. In addition, numerous sources including structured interviews were analysed to identify the key structure and changing dynamics of PAS. **RESULTS:** 128 HTAs incorporating a PAS were approved by NICE or the SMC between October 2007 and June 2015. Out of these, 108 consisted of a simple discount on the list price. The remaining schemes were more complex in nature and included free stock, dose capping, single fixed treatment price, response and rebate schemes. The majority of these PAS were incorporated into HTAs approved before August 2011, after which all PAS have consisted of a simple discount, with the exception of 3 cases, all of which were schemes transferred from earlier submissions for the same product in other indications. **CONCLUSIONS:** There has been a shift towards simple discount schemes in recent years as a preference from both the payer and manufacturer due to easy implementation and price confidentiality.

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EARLY BENEFIT ASSESSMENT AND UPTAKE OF PHARMACEUTICAL INNOVATIONS – EXPERIENCES FROM GERMANY 2011 TO 2014

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OBJECTIVES: In Germany, pharmaceutical manufacturers were free to set prices for prescription medicines approved for coverage under the statutory health insurance system. However, due to rapidly increasing prices for brand-name drugs and prescribing behavior shifting towards expensive new drugs, Germany enacted legislation to fundamentally change the way of establishing the value of new drugs and using it as the basis for price negotiations. Since 2011, the Pharmaceutical Market Restructuring Act (Arzneimittelmarkt-Neuordnungsgesetz – AMNOG) has mandated that all newly introduced drugs be subject to an assessment of their benefits in relation to a comparator, typically the current standard treatment. Yet, market availability is formally not affected by assessment results. **METHODS:** Since January 2011, about 130 early benefit assessment procedures have been concluded. For about 100 products, reimbursement amounts have also been determined. However, the impact of the results from the early benefit assessment on doctor's prescription behavior is unknown. Based on prescription data from a large German sickness fund (6.3 million assured people) we examined to what extent the uptake of pharmaceutical innovations increase in relation to the amount of additional benefit within twelve months after assessment results were published. **RESULTS:** Our findings indicate that there is no correlation of the amount of additional benefit and likelihood of prescription. Products with a large benefit (“considerable”) feature a smaller uptake-rate (13%) than those with no approved benefit (19%). Medicines with a “minor” benefit show an uptake-rate of 18%, whereas those whose benefit is “not quantifiable” show the lowest with 7.5%. **CONCLUSIONS:** Multiple interacting factors influencing the uptake and diffusion of medicines besides additional benefit considerations. For instance, drug characteristics not considered within the benefit assessment that might lead to a patient-relevant benefit (such as the way of administration) and affect the likelihood of early adoption. Recent examples are given and discussed.

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IMPACT OF THE CHANGES IN THE PORTUGUESE PHARMACY REMUNERATION SYSTEM

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OBJECTIVES: The pharmacies and wholesalers remuneration system in Portugal, with drugs dispensing, suffered structural changes after the approval of the Memorandum of Understanding (MoU), signed in May 2011 by the Portuguese Government and International Authorities, which intensified the degree of public pharmaceutical expenditure reduction requirements, in exchange for the financial assistance. The objectives of present study were: to provide an overview of these changes, its impact for pharmacies (2011–2014) and recent advances towards a more comprehensive remuneration system. **METHODS:** 1) literature review of the published legislation and identification of changes; 2) market analysis and pharmacies and wholesalers margins were computed using Pharmacy Sales Information Systems (SICMED / hmR), two nationwide databases with representative drug dispensing data from ambulatory care (and prescription data); 3) impact of changes and implications for the sector and pharmacies. The statistical analysis of the monthly data was performed using SAS, Guide 4.1. **RESULTS:** The fixed linear remuneration system was replaced in January 2012 by a regressive mark-up and minor fees system, per ex-factory price range (for pharmacies and wholesalers), determining the greatest change to the remuneration system during the last decades. In April 2014, a fixed fee and a variable mark-up were added in the lowest and highest price range. The pharmaceutical market was reduced by 876 million euro and NHS expense by 494 million euro over the past four years. The loss of pharmacy and wholesaler remuneration was 322.8 Million euro in the same period (37% of the overall market reduction), higher to the established objective of 50 million euro in the MoU. **CONCLUSIONS:** Changes in the legislation, accentuated after MoU implementation, caused a large reduction in remuneration of pharmacies, due to directly cuts in margins and indirectly decrease in prices. Several studies, published in the meantime, support the difficulties for the sector sustainability.

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ANALYSIS OF NURSING ACTIVITIES AND HEALTH CARE NEED IN RESIDENTIAL SOCIAL CARE INSTITUTIONS IN HUNGARY

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OBJECTIVES: As a consequence of Aging society, elderly people have growing need for long-term care and special nursing in their own homes as well. The focus of Hungarian health care system lacks the examination of health care provisions carried out in the social care system. This study aimed to assess the health care need within the residential social care institutions. **METHODS:** In 2015 March–May - with the support of State Secretary of Social Affairs of the Ministry of Human Capacities and the contribution of Hungarian Charity Service of the Order of Malta - in 12 residential social care institutions - caring about 600 elderly people - an empirical survey was carried out using datasheets focused on care problems and health care activities. Data were analysed by descriptive and regression statistical methods. Further qualitative analysis was carried out making interviews with directors of residential care homes. **RESULTS:** Preliminary results showed that average age of inhabitants became increasingly higher (78 years). Growing rate of dementia (21.2%), need for intensive care (at least 12-hours a day), or continuous monitoring and special nursing (up to 35%) were observed. Our research has been continued with detailed analysis of use of special nursing care for the residents of social care institutions based on claim and utilization data of the National Health Insurance Fund Administration. **CONCLUSIONS:** More and more attention should be paid to nursing and other health care activities carried out in social care institutions. There is an urgent need for establishment of regulatory background, specification of human resources, competency level, and creation of incentive system or separate financing. According to our preliminary budget impact analysis the normative cover of one site with advanced nursing care costs 500 THUF, thus yearly 2 billion HUF could cover the operation of 4000 special nursing sites.

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METHODOLOGY OF INTERNATIONAL COMPARISON OF PHARMACEUTICAL PRICES

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OBJECTIVES: To overview research methodologies related to external price referencing (EPR) in order to support an ongoing survey on 1) the comparison of European price corridor of pharmaceuticals and non-pharmaceutical services and 2) limitations in patient access to drugs in Central Eastern European (CEE) countries. **METHODS:** Comprehensive review of peer reviewed and grey literature was conducted in 2015 February. Publications in PubMed database were searched using four keyword sets: #1 External reference pricing, #2 Central Eastern Europe, #3 Consequences, #4 Pharmaceuticals. We used linkage as follows: #1 AND (#2 OR #3 OR #4). References from relevant publications and results from manual google search were also reviewed. **RESULTS:** 422 publications were found and abstracts were screened by two independent researcher. 38 peer reviewed papers were included in the final evaluation. In addition 22 other documents (e.g. working papers by EU, WHO or OECD) were also included. EPR has high priority and widely used across Europe to price pharmaceuticals. There is an intense but unresolved scientific and public debate on choosing between differential pricing vs. narrow price corridor in Europe. There are several papers on the international price comparison of pharmaceuticals, however CEE countries are rarely involved in such studies. 15 different methodological issues were identified with potentially strong influence on research conclusions, including differences in patent status, launch date, price category, price level, reimbursement status with or without restrictions in different indications, sales volume or confidential discounts. None of the reviewed studies took into account all identified issues. No studies with direct comparison of the pharmaceutical price corridor to the price corridor of non-pharmaceutical services were identified. **CONCLUSIONS:** Methodological issues may heavily influence the conclusions of research in international price comparison, and therefore potentially bias public opinion on to what extent EPR effects patient access in lower income European countries.

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EVALUATION OF FRACTURES IN THE ELDERLY IN AUSTRIA AND DRUG RISK FACTOR ANALYSIS BASED ON CLAIMS DATA

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OBJECTIVES: Fractures due to falls are quite often reason for long hospitalization and care dependency especially for the elderly. Thus, the reduction of cases and complications is of interest for medical insurance companies all over Europe. Therefore, the actual status including regional distribution has to be identified and drug prescription as one potential risk factor is analysed. **METHODS:** Claims data (GAP-DRG) in the Austrian health care sector is used including many details for patient care. **GAP-DRG** (General Approach for Patient oriented Outpatient-based DRG) is a research data base with reimbursement data for outpatient services of sickness funds (social insurance) and Federal Ministry of Health (hospital data). Based on ICD10 diagnosis subgroups of fracture categories are analysed for the years 2001 to 2011. For the 32 health care regions data analysis divided into 5-years age group is performed. Data of persons with fracture and without is compared regarding their drug use, especially for anticoagulants, psychoanalitics, urologicals and calcium. **RESULTS:** In the years 2006 and 2007 over all 63,042 elderly (age 60+) with a fracture main diagnosis were hospitalized in Austria. The incidences vary in the regions and in the 5-years age group. The youngest have an incidence rate of less than 10 per 1.000 persons, the old (age 90+) around 50 cases per 1.000 persons and year. Looking at anticoagulants regional differences in prescription are identified, with an average of 80,7 percent, while the non-fracture population has only in 60,0 percent at least one prescription in 2006 or 2007 of an anticoagulants. **CONCLUSIONS:** The realized work represents the actual Austrian situation. Additional analysis including longer wash-out phase and detailed analysis of 30-day mortality seem promising. Modeling and simulation of regional effects is under discussion.